

the body of the work. Much of this matter requires a great amount of labor and the clearing up of many of the points still in doubt will serve as a stimulus to the club in its future studies on the flora of Connecticut.

The book is a well printed volume of 596 pages, the thickness of which makes it a trifle bulky.

NORMAN TAYLOR

## PROCEEDINGS OF THE CLUB

MARCH 30, 1910

The meeting was held in the museum building of the New York Botanical Garden, beginning at 3.30 P. M. Vice-president Barnhart occupied the chair. Seventeen persons were present.

The minutes of the meeting of March 8 were read and approved.

Professor J. C. Arthur, Dr. John Hendley Barnhart, and Professor Alexander W. Evans were elected delegates to the Third International Botanical Congress to be held in Brussels, May 14th to May 22d, 1910.

First on the announced scientific program was a discussion of "Exploration in Andros" by Dr. J. K. Small. An abstract of this follows :

"Recent exploration of the botanically little-known parts of Andros, Bahamas, carried on by the New York Botanical Garden, brought to light plants not only new to the flora of Andros itself, but also to the flora of the Bahamas. In order to carry out the plans made previously to entering the field, seven bases were selected along the eastern coast of the island, namely, Deep Creek, Smith Hill, Crow Hill, Lisbon Creek, Fresh Creek, Staniard Creek, and Nicholl's Town. The vessel was left at these points while the party, consisting of Mr. J. E. Aranha of the Surveyor General's Office of the Bahamas, Dr. J. K. Small, and Mr. J. J. Carter, together with such members of the vessel's crew as were needed, made excursions inland. Excursions were made on the one hand as far as it was possible to go on foot and on the other by a small boat to the headwaters of most of the creeks mentioned above.

"The topography of Andros is comparatively simple, and the

highest altitude is probably less than one hundred feet, still there is sufficient diversity in the general make-up of the island to support six different plant formations. Of course, the coastal region represents the usual littoral flora of the tropics. Along the eastern edge of the island is a limerock backbone of a single ridge or broken into several ridges. It extends nearly the length of the island or a distance of about ninety miles. This backbone ends more or less abruptly with the shore on the eastern side. On the western side, however, the usually several undulations extend mostly one or two miles inland and gradually die off in the flat country. Behind this rock ridge is a nearly level expanse, extending to the western side of the island, which varies from about eight to forty miles in width. The rock backbone is broken south of the middle of the island by three transverse channels known as Northern, Middle, and Southern bights. These bights make the four primary divisions of Andros. A second category of islands is formed by the numerous small cays in the bights and on the barrier reef along the eastern shore, which varies from one to four miles in width. A third category of islands is formed by the network of waterways resulting from the almost innumerable branches of the eight or nine principal creeks which break through the rock ridge of the eastern shore and the numerous creeks of the western shore. The region made up of this third category of islands is called the "Swash". The backbone of the island is covered with a hardwood forest called the "coppice". The swash is divided between five distinct plant formations, namely, "coppice", which exists here in isolated patches and not continuous as it is on the rock ridge, the "scrub", the "pineyard", the "Savannah", and the "marl".

"Andros is said to comprise fully one third the land area of the Bahamas. Approximately one thousand species of flowering plants are definitely known to occur on the islands of the Bahamian archipelago. Of this number about five hundred and fifty or over fifty per cent. of the Bahamian flowering plants grow naturally on Andros. An exceptionally large percentage of the plants are native mainly because such a small area of the islands is inhabited and cultivated. Less than a half dozen species are en-

demic. About three hundred and fifty species out of the five hundred and fifty growing on Andros, are known to occur in Florida, and many occur also in Cuba."

The second paper on the program was on a "Trip to Santo Domingo" by Mr. Norman Taylor. An abstract of the paper prepared by the speaker follows:

"The expedition covered the easternmost part of the Dominican republic, comprising the provinces of Samana, Seibo, and Macoris. Sanchez, a town on Samana Bay, was the first stopping place and was used as a base for the exploration of the Yuna River, the large swamp to the west of the town, and the mountainous part of the country in the vicinity. The country along the north coast, which is hilly, has an abundant rainfall and maintains a rich moisture-loving vegetation, in striking contrast to the semi-xerophytic or actually desert flora of more sheltered and drier portions of the republic.

"An overland ride to the south coast furnished much valuable information as to the topographic and vegetative characteristics of the interior. In the province of Macoris, a section along the south coast, a large collection was made, with Consuelo, a sugar estate, as a base. The flora here is much the same as that seen along the north coast and the flat character of the country insures a large rainfall. Trips to La Romana, a town along the south coast, nearly at the eastern extremity of the island, netted some interesting cactuses, which seem to be the only representatives of this group that are arboreal in eastern Santo Domingo. From La Romana an excursion to Higüey, an interior town surrounded by large tracts of valuable timber, was made. An endemic *Sabal* and many interesting plants, as yet unnamed, were collected. A cruise to the island of Saona, the southeastern extremity of the larger island, resulted in the collection of *Pseudophoenix Sargentii* and many other distinctively Bahamian scrub plants. The low scrub growth here and a salt lake with a natural savanna surrounding it suggest very vividly some of the larger Bahamas."

"The expedition left New York on October 13, 1909, and returned January 2, 1910."

Adjournment followed.

MARSHALL A. HOWE,  
*Secretary pro tem.*

APRIL 12, 1910

The Club met at the American Museum of Natural History and was called to order by Mr. E. B. Southwick, who presided in the absence of the President and both Vice-presidents. The attendance during the evening was one hundred and one.

Mr. Ralph C. Benedict was nominated a member of the Club. The resignation of Mrs. Carolyn W. Harris was read and accepted.

The announced paper of the evening on "A Visit to the Hawaiian Islands" was then presented by Miss Winifred J. Robinson. The lecture was illustrated by over one hundred lantern slides.

Adjourned.

PERCY WILSON,  
*Secretary*

APRIL 27, 1910

The meeting was held at the museum of the New York Botanical Garden and was called to order at 3:30 P. M. by Vice-president Barnhart. Nineteen persons were present. After the reading and approval of the minutes of the meeting for April 12, the following persons were elected members of the Club: Mr. Ralph C. Benedict, Dr. Z. L. Leonard, and Dr. Gertrude S. Burlingham. The program of the afternoon consisted of a talk by Dr. N. L. Britton on "Recent Botanical Exploration in Cuba." The island of Cuba is about 670 miles long from Cape San Antonio to Cape Maisi and 100 miles at its greatest width. In area, Cuba is about as large as the state of Pennsylvania; it has a flora consisting of over 4,000 flowering plants, nearly double that of Pennsylvania.

The topography of the island is exceedingly varied; the greater portion is a plain lying a little above sea-level. This plain is broken at numerous points by isolated peaks, hills, and mountain ranges.

The collections made by the early botanists found their way to large herbaria of the Old World and contained a number of species which have not as yet been rediscovered. Following brief remarks on the collectors who have visited Cuba since

Charles Wright's time, Dr. Britton exhibited many interesting herbarium specimens secured on the recent expedition to that island.

He also reviewed the literature relating to the Cuban flora, after which discussion followed.

Adjourned.

PERCY WILSON,  
*Secretary*

## OF INTEREST TO TEACHERS

SOME REFLECTIONS UPON BOTANICAL EDUCATION IN AMERICA

BY W. F. GANONG

In a word the first great need of our science teaching is to make it scientific.

The second of the four principal causes of our inferior teaching is this, *we take more thought for our subject than we do of our students*. In the graduate teaching of a university this attitude is logical, but in college and school it is wholly wrong. I think we may express the matter thus, that any teacher who is more interested in his subject than in his students is fit only for a university. It is, I am sure, somewhat more characteristic of scientific than of other teachers that they tend to shut themselves up in their subjects, and to withdraw more than they ought from the common interests, duties and even amenities of the communities in which they live. For this, of course, the very attractiveness of science is largely responsible, because to those who have once passed the portals, science offers an interest so vastly and profoundly absorbing that all other matters appear small by comparison; and we are apt to conclude that the nobility and beneficence of such a mistress are sufficient justification for a complete immersion in her service. We forget that science has no existence apart from humanity, and no meaning unless contributory, however indirectly, to human welfare and happiness. And it should be emphasized to every young teacher that success in science teaching, as in so many other occupations, is well-nigh in direct proportion to one's ability to influence people. Our science teaching would be better